

We Claim:

1. A method of conveying information from one station (remote) to another separated from the one station comprising the steps of:

a. collecting the information comprised of n parameters and its location identity at the one station and encoding it,

b. using a single telephone line at the one station, transmitting the encoded information via a public telephone exchange to the another station having m number of telephone lines, where m and n are independent of each other,

c. receiving the transmitted information without any of the telephone calls being completed,

d. decoding the transmitted information at the another station,

e. comparing the decoded information against a predetermined set of parametric conditions and identity of a plurality of stations akin to the one station and identifying one of the stations of the type one that meets desired criteria involving the parametric conditions, and

f. informing the identified station.

2. A system according to claim 1, where $m = 2$ and n is 256 or less.

3. A system according to claim 1, where $m = 10$ and n is 5 million or less.

4. A system according to claim 1, where m is a fixed number, and n is a variable defining a word comprised of a number of bits, wherein the first two bits of the word stand for the size of the word.
5. A system according to claim 1, where the step of transmitting comprises transmitting bits in a specific order and during a specific period of time determined by a timer.
6. A system according to claim 1, wherein the step of informing the one station further comprises calling the station.
7. A method of monitoring conditions at one (a remote) location, comprising the steps of:
 - a. detecting the conditions at the remote location;
 - b. reading the conditions at the remote location and encoding them to generate corresponding information;
 - c. using a single telephone line at the one station, transmitting the encoded information via a public telephone exchange to the another station having m number of telephone lines, where m and n are independent of each other,
 - d. receiving the transmitted information without any of the telephone calls being completed,
 - e. decoding the transmitted information at the another station,

f. comparing the decoded information against a predetermined set of parametric conditions and identity of a plurality of stations akin to the one station and identifying one of the stations of the type one that meets desired criteria involving the parametric conditions, and

g. informing the identified station.

8. A system according to claim 7, where $m = 2$ and n is 256 or less.

9. A system according to claim 7, where $m = 10$ and n is 5 million or less.

10. A system according to claim 7, where m is a fixed number, and n is a variable defining a word comprised of a number of bits, wherein the first two bits of the word stand for the size of the word.

11. A system according to claim 7, where the step of transmitting comprises transmitting bits in a specific order and during a specific period of time determined by a timer.

12. A system according to claim 7, wherein the step of informing the one station further comprises calling the station.

13. The method of claim 7, wherein the conditions at the remote location comprise conditions of a container at the remote location.

14. The method of claim 13, wherein the container comprises a waste disposal container, the waste disposal container being filled with waste material therein.

15. The method of claim 14, further comprising the step of emptying the waste disposal container, the emptying step being activated by the identifying step.

16. The method of claim 7, wherein the reading step and the transmitting step occur in a transmitting module.

17. The method of claim 16, further comprising the step of providing a first power source to the transmitting module, the first power source having a power level.

18. The method of claim 17, further comprising the step of measuring the power level of the first power source.

19. The method of claim 18, further comprising the step of conserving the power level of the first power source.

20. The method of claim 18, wherein the reading step further comprises the step of reading the power level of the first power source.

21. The method of claim 20, further comprising the step of encoding the information containing the conditions of the remote location and the power level of the first power source.

22. The method of claim 7, wherein the receiving step, the selectively processing step, the calling step and the conveying step all occur in a base module.

23. (Canceled)

24. The method of claim 7, further comprising the step of providing a second power source to the base module, the second power source comprising a power level.

25. A system for conveying information from one station (remote) to another separated from the one station comprising:

a. means for collecting the information comprised of n parameters and its location identity at the one station and encoding it,

b. means for transmitting the encoded information, using a single telephone line at the one station, via a public telephone exchange to the another station having m number of telephone lines, where m and n are independent of each other,

c. means for receiving the transmitted information without any of the telephone calls being completed, and further comprising disconnecting means for disconnecting the call after predetermined rings but before its completion,

d. means for decoding the transmitted information at the another station,

e. means for comparing the decoded information against a predetermined set of parametric conditions and identity of a plurality of stations akin to the one station and means for identifying one of the stations of the type one that meets desired criteria involving the parametric conditions, and

f. means for informing the identified station.

26. A system according to claim 25, where $m = 2$ and n is 256 or less.

27. A system according to claim 25, where $m = 10$ and n is 5 million or less.

28. A system according to claim 25, where m is a fixed number, and n is a variable defining a word, and the first two bits of the word stand for the size of the word.

29. A system according to claim 25, where means for transmitting comprises means for transmitting bits in a specific order and during a specific period determined by a timer.

30. A system according to claim 25, where means for informing the identified station further comprises means for identifying the station which needs a service such as a pick-up or a recharge of a power source and means for calling the station.

31. A sensing device for monitoring conditions at one (remote) location having an originating telephone number, the sensing device comprising:

a. detecting means for detecting the conditions at the remote location;

b. a transmitting module having a first power source, the transmitting module further comprising reading means for reading the conditions at the remote location, and encoding means for generating corresponding information,

c. the transmitting module further comprises means for transmitting the encoded information, using a single telephone line at the one station, via a public telephone exchange to the another station having m number of telephone lines, where m and n are independent of each other,

d. a base module comprising means for receiving the transmitted information without any of the telephone calls being completed, and further comprising disconnecting means for disconnecting the call after a predetermined number of rings but before its completion,

e. means for decoding the transmitted information at the another station,

f. means for comparing the decoded information against a pre-programmed list of parametric conditions and identity of a plurality of stations akin to the one station and means for identifying one of the stations of the type one that meets desired criteria involving the parametric conditions, and

g. means for informing the identified station.

32. The sensing device of claim 31, wherein the conditions at the remote location comprise conditions of a container at the remote location.

33. The sensing device of claim 32, wherein the container comprises a waste disposal container, the waste disposal container being filled with waste material therein.

34. The sensing device of claim 33, wherein the conditions of the waste disposal container comprise different levels of waste material in the waste disposal container.

35. The sensing device of claim 34, further comprising emptying means for emptying the waste disposal container, whereby the emptying means is activated by the identifying means to empty the waste disposal container.

36. The sensing device of claim 35, wherein the emptying means comprises means for routing at least one vehicle to the remote location to empty the waste disposal container.

37. The sensing device of claim 31, wherein the first power source comprises a first power source having a power level.

38. The sensing device of claim 37, further comprising measuring means for measuring the power level of the first power source, whereby the measuring means conveys information regarding the power level to the reading means.

39. The sensing device of claim 38, wherein:

a. the reading means reads the conditions at the remote location and the power level of the first power source; and

b. the transmitting means transmits information regarding the conditions at the remote location and the power level of the first power source.

40. The sensing device of claim 37, further comprising a second power source for providing power to the base module.

41. The sensing device of claim 40, wherein the second power source comprises a second power source having a power level.

42. The sensing device of claim 41, wherein the identifying means monitors the power levels of the first power source and the second power source.

43. The sensing device of claim 41, further comprising:

- a. internal circuitry, the internal circuitry being located within the base module;
- b. a regulator, the regulator being connected to the internal circuitry;
- c. a full wave bridge circuit, the full wave bridge circuit being connected to the regulator, the full wave bridge circuit further allowing any polarity of DC input to power the base module; and

- d. a power input jack, the power input jack being connected to the full wave bridge circuit and to the second power source,

whereby the second power source provides power to the power input jack, the power inputs jack provides power to the full wave bridge circuit, the full wave bridge circuit feeds power to the regulator, the regulator further provides power to the rest of the internal circuitry.

44. The sensing device of claim 41, further comprising recharging means for recharging the first power source and the second power source, whereby the recharging means is activated by the identifying means.

45. The sensing device of claim 41, wherein the list of pre-programmed parametric conditions further corresponds to the power levels of the first power source and the second power source.

46. The sensing device of claim 31, wherein the transmitting means comprises an encoder.

47. The sensing device of claim 31, wherein the receiving means of the base module comprises a receiver and a decoder, whereby the receiver receives the transmitted information from the transmitting means and relays the information to the decoder, and the decoder conveys the transmitted information to the first processing means.

48. The sensing device of claim 31, wherein the first processing means of the base module comprises a first microprocessor.

49. The sensing device of claim 31, wherein the detecting means comprises at least one ultrasonic ranging unit, the ultrasonic ranging unit using the first microprocessor's internal timing functions to detect the conditions at the remote location.

50. The sensing device of claim 31, wherein the detecting means comprises remote sensors.

51. The sensing device of claim 31, wherein the disconnecting means comprises a modem.

52. The sensing device of claim 31, wherein the predetermined number of rings comprises four rings.

53. The sensing device of claim 31, wherein the identifying means comprises a second processing means and a CALLER ID unit, the CALLER ID unit being connected to the second processing means.

54. The sensing device of claim 53, wherein the second processing means comprises a second microprocessor.

55. The sensing device of claim 31, wherein the identifying means comprises a CALLER ID unit.